Scoping Document for the Central Valley Regional Water Quality Control Board Long-term Irrigated Lands Regulatory Program

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This scoping document provides proposed scope and goals for the Central Valley Regional Water Quality Control Board's long-term Irrigated Lands Regulatory Program (ILRP). Also included is a discussion of proposed long-term regulatory program 1) alternative approaches for achieving program goals, 2) alternative regulatory tools to accomplish program goals, and 3) factors that will be considered in developing and evaluating program alternatives.

The goal of this document is to provide information to stakeholders for the purpose of gathering comments and suggestions regarding the long-term ILRP scope, goals, and alternatives.

I. Background

How are irrigated lands currently regulated in the Central Valley?

Growers with irrigated lands that discharge waste (e.g., tailwater, water from underground drains, operational spills, storm water runoff) to surface waters (canals, ponds, rivers, lakes) are required to either: 1) join a coalition group approved by the Central Valley Water Board; 2) file for a conditional waiver[1] as an individual grower (e.g., discharger); or 3) file an application for the purpose of receiving a permit to discharge (referred to as waste discharge requirements).

There are two adopted sets of regulatory requirements: one for coalition groups which form on behalf of individual growers, and a second for individual growers. Both sets of regulations require growers to comply with applicable water quality standards (e.g., chemical, bacterial, salt standards), protect beneficial uses (e.g., aquatic life, drinking water) and prevent nuisance. Growers working through coalitions or with the Central Valley Water Board individually must implement practices to protect water quality, conduct water quality monitoring, evaluate the effectiveness of management practices, and change practices to improve water quality where problems are identified.

What role do the coalitions play?

A coalition group is any group receiving Regional Water Board approval to operate under the irrigated lands regulatory requirements. Coalition groups organize growers to share best management practices, conduct monitoring of rivers and creeks, apply for grants, and work cooperatively toward improving

[1] A conditional "waiver" only waives the need to submit a report of waste discharge. Compliance with all conditions of the waiver is required.

water quality through the development and implementation of management plans[2]. The coalition group works on behalf of the members to ensure all Regional Water Board requirements are met. However, growers have the ultimate responsibility to ensure their practices protect water quality.

How are irrigated lands regulated in other parts of California?

Central Coast Regional Water Board

Commercial irrigated farming operations that discharge waste (e.g., tailwater, percolation to groundwater, storm water runoff) to surface or ground waters are required to submit an application for enrollment under a Conditional Waiver. Growers must conduct water quality monitoring or join a cooperative monitoring program developed by the Central Coast Regional Water Board. The regulations require growers to comply with applicable water quality standards, protect beneficial uses, prevent nuisance, and attend farm water quality training. Recommendations for protecting water quality include controlling pollutants at the source through the development and implementation of pollutant minimization management practices.

Los Angeles Regional Water Board

Irrigated lands operations that discharge waste to surface or ground waters must be covered by a Conditional Waiver or submit an application for waste discharge requirements. The Los Angeles Regional Water Board regulations for irrigated lands require growers to comply with applicable water quality standards. Requirements include: submitting a notice of intent to comply with the waiver or by participating in a discharger group that submits a notice of intent to comply with the waiver; performing individual or group monitoring; and developing and implementing a water quality management plan if necessary, to reduce pollutant loading to surface waters.

Colorado River Basin Regional Water Board

Because agricultural discharges, primarily irrigation return flows, constitute the largest volume of pollution entering surface waters in the Colorado River Basin, the Regional Water Board established priorities for dealing with the agricultural drain systems based on a watershed approach. Drainage entities (e.g. water districts) were identified in each watershed, and the Regional Board is working closely with these entities to implement agricultural pollution controls.

[2] Management Plans are required where water quality problems have been identified through monitoring.

How does the Central Valley Regional Water Board regulate other entities that discharge pollution to ground or surface water?

Any person that discharges or proposes to discharge pollution to surface or ground waters is required to apply for waste discharge requirements from the Central Valley Water Board or obtain coverage under a conditional waiver. The Central Valley Water Board establishes requirements for waste discharge. Requirements include: specific discharge limitations and prohibitions, source control requirements, development of management practices, and monitoring. Wastewater treatment plants, large municipalities, and many facilities discharging to groundwater have site-specific requirements. Industrial and construction storm water runoff, many dairies, timber harvest operations, and food processing wastes are regulated under general requirements.

II. Scope and Goals for the Long-term Irrigated Lands Regulatory Program

How are irrigated lands currently defined?

Irrigated lands are currently defined as lands where water is applied to produce crops including land planted to row, vineyard, pasture, field and tree crops, commercial nurseries, nursery stock production, managed wetlands, rice production, and greenhouse operations with permeable floors.

How might the irrigated lands definition change?

The Central Valley Water Board staff is considering changing the definition to focus on activities that have similar practices and potential water quality impacts. For example, managed wetlands and greenhouse operations with permeable floors may be excluded, since these land uses differ significantly from most land uses included in the current definition. Managed wetlands do not involve growing a crop and are not regulated under the California Food and Agricultural Code. Greenhouse operations are conducted in a controlled environment (i.e., plants are not grown in the open), which allows for greater control of the discharge of wastes and opportunities to use technologies and practices not available for other crop production.

Staff is also considering including agricultural activities that are not currently included: non-irrigated pasture and dry land farming. Potential discharge of waste for non-irrigated pasture and dry land farming would be limited to storm events but could have similar impacts as irrigated operations.

What is the current scope of the irrigated lands regulatory program?

The scope of the current irrigated lands regulatory program is limited to the regulation of waste discharges from irrigated lands to surface waters, such as tailwater containing nutrients to a river or creek. Waste specifically regulated

under the current program includes: nutrients, salts pesticides, sediment, and pathogens.

What are some of the potential changes to the scope?

The Central Valley Water Board and State Water Resources Control Board have directed staff to include regulation of waste discharges from irrigated lands to groundwater in addition to surface waters. The addition of discharges to groundwater from irrigated lands will increase the complexity of the program, but is deemed necessary since irrigation water percolating to groundwater can include wastes such as salts, nutrients, or pesticides.

At this time, it seems appropriate to expand the irrigated lands program so that regulatory coverage can be obtained for discharges to ground and surface waters. This will alleviate the need for separate regulatory mechanisms to cover discharges emanating from the same entity (i.e. discharge to surface water coverage under ILRP versus discharge to groundwater coverage under another program). Central Valley Water Board staff will also examine whether there are situations in which discharge to groundwater is unlikely to occur.

What are the current goals of the irrigated lands regulatory program?

The current irrigated lands regulatory program requires that beneficial uses (e.g., aquatic life, drinking water) be protected in surface waters receiving wastes from irrigated lands. Where protection of beneficial uses is defined as meeting applicable water quality objectives (e.g., chemical, bacterial, salt standards) as defined in Water Quality Control Plans (Basin Plans), statewide plans, and U.S. Environmental Protection Agency standards.

What are the potential changes to irrigated lands regulatory program goals?

The proposed goals of the long-term program would require that beneficial uses be protected in ground and surface waters receiving wastes from irrigated lands.

Some ground and surface waters have water quality that is much better than would be allowed under existing standards. For example, nutrient levels in good quality waters may be very low, or not detectable, while existing standards for nutrients may be much higher. For these waters, some degradation of quality could occur without harming beneficial uses. The Central Valley Water Board will consider whether such degradation of high quality waters should be allowed. Also, Central Valley Water Board staff are considering a goal to prevent pollution of ground and surface waters in the first place. Growers would implement the best control or treatment that is practical and feasible to reduce or eliminate pollution contained in water discharged to ground or surface waters.

III. Alternative Approaches for Achieving Program Goals

What approach is used to meet the current irrigated lands regulatory program goals?

The current program emphasizes addressing identified water quality problems. The initial focus is on watershed monitoring to identify problem areas and problem constituents. Once the problems are identified, emphasis is put on addressing and tracking resolution of the water quality problem. To address water quality problems, growers are required to implement management practices that reduce wastes discharged to surface waters. Areas that do not have identified problems have not received as much attention.

What other approaches are available to meet program goals?

The current program is implemented similarly for all irrigated lands dischargers within the Central Valley Region. This "one size fits all" approach provides an efficient means for regulating the numerous irrigated lands discharges under a single Conditional Waiver. However, this approach prevents effective tailoring of regulatory requirements for specific geographic locations, operations, or other site-specific concerns.

The Central Valley Regional Water Board is considering alternatives that would provide a more focused approach for achieving program goals. These alternatives could include grouping irrigated lands dischargers into categories. Example categories may be based on:

- Geography/Climate
- Commodity
- Operations/Irrigation practices
- Site-specific information (soil type, registered material use, discharge to impaired water body)
- Mixture of above categories (i.e. geography and specific commodity)

A series of regulatory mechanisms (e.g., waste discharge requirements, waivers, or discharge prohibitions) specific to each category could then be adopted. Each of these mechanisms would be tailored to a subset of the numerous irrigated lands operations throughout the Central Valley Region. For example, some irrigated lands discharges may pose a negligible water quality threat through effective implementation of pollution minimizing management practices. Appropriate requirements for this category may include certification that specific management practices have been adopted with minimal required watershed monitoring.

It is important to note that tailoring requirements to specific categories would be obtained at the cost of program efficiency and simplicity.

Adoption of individual waste discharge requirements (or individual waste discharge permits) for each irrigated lands discharge would provide the ultimate site-specific focus. This approach would be very costly and inefficient, given the number of irrigated lands dischargers. However, individuals that are not responsive to general requirements would still be regulated individually.

Other approaches include those described above for the Central Coast, Los Angeles, and Colorado River Basin Regional Water Boards. These approaches will be reviewed in detail to see if any aspects could be applied to the Central Valley's long-term irrigated lands regulatory program.

IV. Alternative Regulatory Tools to Accomplish Program Goals

What are some of the regulatory tools that might be used and how do they differ?

The Regional Water Board can prescribe discharge limitations, pollution minimization measures, implementation of management practices, operational requirements, and monitoring requirements to regulate an individual waste discharge or a general class of waste discharges. In addition, discharges could be prohibited or conditionally prohibited depending on the severity of the pollution and availability of mitigation measures.

The alternative regulatory tools for regulating discharges from irrigated lands include waivers of waste discharge requirements (individual or general); waste discharge requirements (individual or general); or a conditional prohibition of discharge (specific to certain areas or types of discharge). Waivers of waste discharge requirements only "waive" the requirement to submit a report of waste discharge. The conditions of a waiver are fully enforceable.

What are the issues that will be considered in deciding which regulatory tool to use?

The selection of appropriate regulatory tools will depend primarily on policy considerations, such as what are the most efficient and effective methods for achieving program goals. Each of the regulatory tools can be designed to meet program goals.

V. Factors that will be Considered in Developing and Evaluating Program Alternatives

What are some of the potential negative environmental impacts that could occur?

The Environmental Impact Report (EIR), currently being drafted for long-term regulatory program alternatives will provide an analysis of potential environmental impacts associated with each alternative. Mitigation measures will also be evaluated as part of the EIR process. As an example, management practices (mitigation measures) instituted to protect surface water may increase discharge into groundwater and have a negative impact on groundwater quality. Alternatives that achieve program goals and have the least potential negative environmental impacts are desirable.

What are some of the potential economic impacts?

The financial burden of compliance with the irrigated lands regulatory program alternatives must be evaluated from the perspective of growers and the State. Alternatives that achieve program goals and have the least negative economic impacts are desirable.

Examples of potential negative economic impacts to growers include increased costs associated with adopting new management practices. Benefits may also occur, such as water savings from improved irrigation practices.

In addition to water quality benefits, are there other potential environmental benefits?

Other environmental benefits could include increased air quality through minimization of chemical applications. Alternatives that achieve program goals and have the most environmental benefits are desirable.

What can be done to make sure the program is implemented in a manner that is cost effective for the State and agricultural community?

In order to determine whether a program alternative is cost effective or efficient, the relative amount of resources required from the State and growers' perspective to accomplish the same program goals will be assessed for each alternative. The most efficient program that accomplishes water quality goals is desirable.

How can we ensure that the program is fair?

One way of evaluating fairness could mirror the approach used to assess fees for other regulatory programs. Fees are based on consideration of total flow, volume, number of animals (where applicable), threat to water quality, or area[3]. Similarly, the degree of regulation for growers could be based on such factors. A greater threat to water quality may require greater regulation (e.g., more monitoring, reporting), than lower threats to water quality.

Also, the program alternative must require similar regulatory measures for similar types of waste discharge to be considered fair. For example, growers with similar waste discharge characteristics and threat to ambient water quality should be regulated in a similar manner.

How can we be sure that the program will be effective in protecting water quality?

Judging effectiveness prior to implementation of the program will be difficult. One way to estimate the potential effectiveness of a program alternative is to analyze other programs (and the current ILRP) to see what has worked and what has not. Preferable long-term program alternatives will have characteristics of other programs that have proved most effective at addressing water quality issues.

Is the program consistent with applicable State and federal laws?

Long-term program alternatives must be consistent with applicable State and federal laws. Consequently, the requirements of the long-term regulatory program must be consistent with or implement the Basin Plan (that is, assure that ground and surface waters attain water quality objectives), and must attain the highest water quality that is reasonable. Program alternatives that are not consistent with applicable State and federal laws will not be considered.

Contact

For more information regarding the Central Valley Regional Water Board's long-term irrigated lands regulatory program you may contact Adam Laputz at (916) 464-4848 or by email at awlaputz@waterboards.ca.gov.

[3] Water Code § 13260(d)(1)

Reference Documents

Central Valley Regional Water Quality Control Board Coalition Group Conditional Waiver, Order No. R5-2006-0053: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/coalition_group_waiver/index.shtml.

Central Valley Regional Water Quality Control Board Coalition Group Monitoring and Reporting Program, Order No. R5-2008-0005: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2008-0005_mrp.pdf.

Central Valley Regional Water Quality Control Board Individual Discharger Conditional Waiver, Order No. R5-2006-0054: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/indv_disch_cond_waiver/index.shtml.

Central Valley Regional Water Quality Control Board Individual Discharger Monitoring and Reporting Program, Order No. R5-2008-0827: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2003-0827-mrp_qapp.pdf.

General Information, Central Valley Regional Water Quality Control Board Irrigated Lands Program: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/.

Disclaimer

This document was developed to solicit public input on the Central Valley Water Board's long-term program to address discharges from irrigated agriculture. The description of the current ILRP is not meant to comprehensively describe the current program requirements. No new Central Valley Water Board policy or requirements are expressed or intended to be established by this document.